

**DRAFT BACKGROUND DOCUMENT C  
Non-Majors Inspection Coverage Measures**

This background document summarizes data related to draft evaluations of the Alaska Department of Environmental Conservation (DEC) inspection coverage measures for Metrics 5b1 and 5b2, the inspection coverage measures for NPDES non-majors with individual and general permits (i.e. traditional minors). This background document also summarizes draft comparisons of DEC's Compliance Monitoring Strategy (CMS) inspection goals for traditional minors, including construction and industrial stormwater facilities, with DEC's completed inspection universes for calendar years (CYs) 2011-2012.

The draft summaries and evaluations in this background document rely in part on the Online Tracking Information System (OTIS) frozen State-verified data for fiscal year (FY) 2012, including the facility counts and universes for Metrics 5b1 and 5b2.

This draft background document is subject to further updating, revisions and clarifications based on additional information, reviews and feedback, including DEC feedback.

**Background**

The State Review Framework (SRF) Round 3 CWA Metrics Summary (3/21/12) indicates that Metrics 5b1 and 5b2 should exclude stormwater and pretreatment inspections from the universe and related counts. The SRF Round 3 CWA Metrics Plain Language Guide (PLG) also indicates that both metrics do not include wet weather inspections such as CSO, SSO and stormwater inspections.

The State's October 2008 Amended Final [APDES] Program Application (approved October 31, 2008) includes an APDES Program Description (Final October 29, 2008), Section 9.1.3, that states it is DEC's goal "to inspect all facilities classified as a minor discharger with an individual or general permit at least once every five years." Section 9.1.3 also states that DEC's annual facility inspection schedule will include the number of construction stormwater inspections that will be completed.

DEC's CMS annual inspection plan submissions for CYs 2010, 2011, 2012 and 2013 generally adopt the national goal (i.e. one inspection every five years) and reiterate its own Program Description goal of inspecting traditional minor facilities at least once every five years. Except as discussed below, DEC's annual CMS submissions typically adopt an interim annual inspection goal of 20% of the specific traditional minor sector's universe (i.e. 20% per year reflecting the once-every-five-year cumulative or multi-year goal).

The SRF Round 3 CWA Metrics Plain Language Guide also states that reviewers should base their findings primarily on data from the review year. This background document relies in part

on the frozen State-verified federal fiscal year 2012 data, including the OTIS frozen counts and universes for Metrics 5b1 and 5b2.

However, DEC implements its CMS inspection schedule on a calendar year basis, not a federal fiscal year. Consequently, the draft evaluations are supported in part on an evaluation of historical data presented in the DEC 2013 CMS representing inspection rate coverages over a four-year period, 2009-2012. The draft evaluations are also supported in part on a comparison of DEC-generated inspection summary reports of traditional minors for Calendar Years 2011 and 2012 against the DEC's CMS projected inspection goals for traditional minors for those two years.

### **Corrected Measures/Rates Using Frozen State-Verified Data**

The purpose of this part is to show the effects of corrections to the underlying frozen State-verified universes and counts on the Metrics 5b1 and 5b2 inspection measures/rates, as corrected.

For Metric 5b1 (non-majors with individual permits), the frozen State-verified data shows an inspection count of 2 based on a universe of 32 facilities or an inspection coverage rate of 6.3%. However, per EPA guidance documents (e.g., PLG), the counts and universe should not include CSO, SSO or stormwater inspections. The Metric 5b1 frozen State-verified universe identifies three (3) MS4s. In addition, the universe for FY 2012 should not include Oil & Gas (O&G) facilities because DEC obtained administrative jurisdiction over the O&G sector on October 31, 2012. The frozen State-verified universe identifies eight (8) O&G facilities. Excluding these 11 facilities from the universe related to stormwater (3) and O&G (8), the universe should be 21 facilities. The revised inspection coverage rate is 2/21 or 9.5%.

For Metric 5b2 (non-majors with general permits), the frozen State-verified data shows an inspection count of 61 based on a universe of 5572 facilities, or an inspection coverage rate of 1.1%. However, per EPA guidance documents (e.g. PLG), the counts and universe should not include CSO, SSO or stormwater inspections. The Metric 5b2 frozen State-verified inspection count of 61 identified 43 stormwater inspections (i.e. 24 MSGP and 19 CGP inspections). The universe also identifies 97 MSGP (AKR05) coverages and 193 CGP (AKR10) coverages. In addition, the universe for FY 2012 should not include O&G facilities because DEC obtained administrative jurisdiction over the O&G sector on October 31, 2012. However, the universe identifies 78 O&G facilities. Excluding the 43 stormwater inspections from the count and the 368 facilities from the universe related to stormwater (290) and O&G (78), the universe would be 5204 facilities. The revised inspection coverage rate is 18/5204 or 0.3%.

Using the frozen State-verified data for all traditional minors in combined Metrics 5b1 and 5b2, the FY 2012 inspection count is 20 (2+18) with a universe of 5225 facilities (21+5204). Accordingly, the combine Metrics 5b1/5b2 FY 2012 inspection coverage rate is 20/5225 or 0.4%.

## **Measures/Rates Using Frozen State-Verified Data With Exclusions**

The purpose of this part is to show the effects of excluding certain sectors from the underlying frozen State-verified universes and counts on the Metrics 5b1 and 5b2 inspection measures/rates. As discussed below, the specific sector exclusions are based on DEC's divergence from the DEC interim 20%-per-year goal that is typical for most sectors under DEC's traditional minors universe.

Placer Mine Sector. The frozen State-verified universe for Metric 5b2 (non-majors with general permits) includes 4818 coverages under various placer mine general permits (GPs) (i.e. AKG370000 – AKG379000). The Metric 5b2 inspection count of 61 also includes 10 inspections of AKG370000 coverages.

DEC's CMS submissions for CYs 2011 and 2012 did not include an interim 20% annual inspection goal for minor placer mine facilities covered under general permits. DEC asserted that an inspection schedule meeting the 20% goal would add a minimum of 200 inspections in each year and "would require a substantial increase in both personal and travel dollars." The DEC CYs 2011 and 2012 CMSs proposed the completion of five and 15 placer mine inspections respectively.

DEC's placer mine sector has been under DEC's administrative authority and jurisdiction since October 31, 2010. In its CY 2012 CMS, DEC estimated the placer mine universe at approximately 4200 facilities with approximately 1000 facilities *active* at any one time. In response to EPA's FY 2011 data metrics analysis, DEC estimated its placer mine universe in a range of 4922-6070 facilities.

Based on DEC's CY 2013 CMS, DEC inspected 18 placer mine facilities in the two year time period of 2011-2012. The 18 inspected facilities represent 90% of DEC's proposed 20 inspections for that two year period and approximately, on average, 0.9% of *active* facilities per year for that two year period.

DEC proposed to inspect 20 placer mines in 2013. DEC inspection summaries for CY 2013 indicated that nine placer mines under general permits were inspected. In summary, DEC's submissions indicate the completion of 27 inspections over a three year period, CYs 2011-2013.

Based on that inspection count, DEC's total cumulative inspection coverage rate for *active* facilities (i.e. DEC's estimated 1000 active facilities each year) in the three year period of 2011-2013 is 2.7% and the average annual coverage rate for *active* facilities for those three years is 0.9% per year.

Using OTIS data, DEC has a cumulative inspection measure/rate of 0.6% for the entire frozen State-verified universe of 4818 facilities for a three year period (2011-2013) (i.e. 27/4818).

DEC's December 24, 2013 Letter (i.e. CY 2014 CMS) indicates approximately 2747 placer mine coverages under its placer mine general permits. DEC proposes to complete 20 inspections in this sector in CY 2014, or alternatively, approximately 0.7% of the new estimated universe.

Log Transfer Facility Sector. The frozen State-verified universe for Metric 5b2 also includes 85 log transfer facility (LTF) coverages (i.e. AKG70000). There are no LTF inspections identified in the 61 inspection count.

DEC's LTF sector has been under DEC's administrative authority and jurisdiction since October 31, 2008, or for a full five years as of the end of CY 2013. DEC's CMS annual inspection plan submissions for CYs 2009-2013 regarding log transfer facilities have also deviated from DEC's interim 20%-per-year goal by focusing inspection proposals only on *active* LTFs.

The DEC CYs 2012 and 2013 CMS note that DEC would have to inspect 19 LTFs per year in order to meet DEC's interim 20% annual goal. The DEC CY 2012 CMS indicates that of the 95 covered LTFs, no more than six LTFs are active or have been active in any one year. The DEC CY 2013 CMS indicates the existence of 87 LTFs and projected that five LTFs would be active in CY 2013. DEC indicated it would not do any LTF inspections in CY 2013.

Based on DEC's CY 2012 CMS, two LTFs will have been inspected in five years of DEC's oversight, or 33% of estimated *active* LTF sites. However, as noted below, there were an estimated 12 active LTFs in 2013, almost double the historic estimated 5-6 active LTFs per year that DEC has noted in prior CMS submissions. In five years and based on OTIS frozen data's universe, DEC will have inspected 2.4% of the entire LTF sector (i.e. 2/85).

DEC's December 24, 2013 Letter (i.e. CY 2014 CMS) indicates approximately 77 coverages under its two LTF general permits and reports that 12 LTF facilities operated in CY 2013. DEC proposes to complete one inspection in this sector in CY 2014, or alternatively, approximately 1.3% of the new estimated universe or just over 8% of the 12 active LTFs in 2013.

Measure/Rate Effect with Exclusions. The following evaluation illustrates DEC's traditional minors' FY 2012 inspection rate taking into account DEC's deviations from its interim 20% annual inspection goal for the placer mine and LTF sectors. The illustration shows the FY 2012 rate for the traditional minors universe excluding all facilities associated with the placer mine and LTF sectors.

For context, the corrected frozen State-verified data for all traditional minors in combined Metrics 5b1 and 5b2 shows the FY 2012 inspection count is 20 (2+18) with a universe of 5225 facilities (21+5204). Excluding the 4818 and 10 placer mines from the universe and inspection counts and the 85 LTFs from the universe, the FY 2012 measure/rate is 10/322 or 3.1%.

## **Measures/Rates For Domestic Wastewater/Seafood Sectors Using DEC 2013 CMS Data**

DEC's February 15, 2013 CMS inspection proposal (DEC 2013 CMS) contains historical summary inspection data for various sectors that can be used to illustrate DEC's status with respect to EPA's CMS and DEC inspection coverage goals for traditional minors. The following evaluation of DEC's small wastewater treatment works (WTWs) and seafood processors sectors covered by general permits is based on DEC's CY 2013 CMS submission and specifically, the inspection data in Table 2: APDES GPs Considered Traditional Minors.

DEC has had administrative authority and jurisdiction over these two sectors since October 31, 2008. Consequently, DEC will have had inspection authority over these two sectors over five years by the end of CY 2013.

The DEC CY 2013 CMS, Table 2, indicates that the small WTW and seafood sectors covered under APDES general permits have current universes of 193 and 140 facilities respectively, or a combined total of 333 facilities. Based on DEC's CY 2013 CMS Table 2, the current 333 facilities in these two sectors represent approximately 75% of all APDES traditional minor facilities excluding minor facilities in the LTF and placer mine sectors (i.e. 333/446).

The DEC CY 2013 CMS projected completion of 7 inspections under the small WTW general permits and 47 inspections under the seafood general permits, for a projected total of 54 inspections in 2013 in these two general permit sectors.

If all proposed WTW and seafood inspections for 2013 were completed as proposed in the DEC CY 2013 CMS, DEC will have completed a total of 110 WTW and 76 seafood facility inspections in five years, or a combined sector total of 186 inspections. Accordingly, the projected DEC 5-year inspection coverage rate for these two sectors could be as high as 55.9% (186/333) after 2013 if all inspections are completed as proposed in 2013, compared to the DEC and national 5-year goal of 100%.

A recent DEC preliminary end-of-year summary indicates that DEC completed a total of approximately 104 APDES inspections in CY 2013 in comparison to an estimated, proposed 173 APDES inspections. A preliminary evaluation of DEC inspections summaries for CY 2013 indicates that it completed approximately 30 inspections under small WTW and seafood general permits. Based on these preliminary evaluations, the combined sector total inspections could be potentially 162 inspections in five years or an approximate cumulative 48.6% coverage measure (i.e. 162/333).

DEC's December 24, 2013 Letter (i.e. CY 2014 CMS) proposes a total of 125 APDES inspections in 2014, with approximately 19 total inspections planned for these combined domestic/seafood traditional minor sectors covered under general permits.

## **2011 & 2012 Traditional Minors Inspection Proposals/Completion Comparisons**

Tables A and B of this Background Document C represent CY 2011 and 2012 comparisons between DEC's CMS inspection proposals/goals and DEC's completed inspections based on DEC reports submitted to EPA under the Performance Partnership Grant (PPG) agreements.

Tables A and B indicate that DEC completed 44% and 42% of its 2011 and 2012 traditional minor inspection goals, respectively.

These inspection rates for non-stormwater facilities occurred despite DEC's representation that construction stormwater general permit (CGP) inspections would be conducted only as "time allows" and only if such CGP inspections could be done without adversely affecting DEC's ability to inspect the other facilities (e.g. majors, traditional minors, etc.) specifically identified on the yearly inspection schedules.

### **2011 & 2012 Stormwater GP Inspection Proposals/Completion Comparisons**

Tables A and B also assesses DEC's adherence to CMS and DEC inspection goals and DEC for CGP and multisector stormwater general permit (MSGP) inspections in CYs 2011 and 2012. DEC has administered the stormwater sector since October 31, 2009 (i.e. CYs 2010-2013).

For context, DEC's Program Description, Section 9.1.3, states that DEC's annual facility inspection schedule will include the number of construction stormwater inspections that will be completed. However, the DEC 2011 and 2012 CMS submissions did not identify a specific number of CGP inspections. The more recent DEC 2013 CMS indicated that 10 CGP inspections would be conducted in 2013.

Instead of actual CGP proposed inspection numbers as committed to in the Program Description, DEC's 2011 and 2012 CMS submissions state that CGP inspections will be done "as time allows." DEC's CMS submissions do, however, state that DEC intends to conduct CGP inspections with the goal of meeting both Phase I 10%-per-year and Phase 2 5%-per-year inspection coverage rates. DEC's CMS submissions also stated that such CGP inspections would be done only if they would not adversely affect DEC's ability to inspect the other facilities (e.g. majors, traditional minors, etc.) specifically identified on the yearly inspection schedules. Accordingly, non-CGP inspections, including traditional minors, appear to take precedent over CGP inspections.

The EPA CMS inspection goal for industrial stormwater permittees (e.g. MSGP) is to inspect at least 10% of the universe per year.

The EPA CMS inspection goal for construction stormwater permittees (e.g. CGP) is to inspect at least 10% of the Phase I sites each year and at least 5% of the Phase II sites each year.

DEC's data with regard to the following CGP inspection analysis is lacking in that DEC has not provided EPA with specific numbers of CGP inspections proposed in CYs 2011 and 2012 or completed on a Phase I/Phase II basis. In addition, DEC has not provided detailed information on what is the exact universe of total active CGP coverages in a given calendar year. Typically, the available data only identifies the number of new CGP coverages issued in a particular time period (e.g. number of NOIs submitted and subsequent coverages issued in a year). Accordingly,

there was no current data available to EPA to show what DEC might have projected annually to inspect within each Phase I and Phase II sub-group. Consequently, some assumptions must be made as discussed below to complete the assessment.

DEC's Final Capacity Building Summary (March 2013) indicated that DEC issued 557, 795 and 679 CGP coverages in CYs 2010, 2011 and 2012 respectively. As of March 2013, DEC's "DEC Permit In Effect" search engine showed 784 facilities covered by its CGP and DEC previously, in October 2012, indicated there were 824 CGP coverages.

For purposes of this evaluation, it is assumed that the underlying CGP universe of Phase I/Phase II facilities in the calendar year is equal to the number of CGP coverages issued in that year. This is a potentially conservative low universe number because it does not account for possible coverages that were issued in years prior to the "test" year for projects that are under active construction for multiple years.

Accordingly, Tables A and B use CGP universes of 795 and 679 facilities for CYs 2011-2012 based on the DEC's Final Capacity Building Summary (March 2013) indicating that DEC issued 795 and 679 CGP coverages in CYs 2011 and 2012 respectively.

As noted there is a current lack of information on a yearly basis of the actual Phase I/Phase II split of completed CGP inspections. For purposes of this assessment, it is assumed that the Phase I/Phase II split of total completed inspections is 44%/56% respectively for the two calendar years 2011 and 2012.

This derived percentage split is based on CGP NOI information in DEC's SFY 2012 end-of-year report and DEC's SFY 2013 mid-year PPG report which included CGP total NOI issuance counts with Phase I and II splits for the reporting time periods. The reports' information is summarized in the table below. This assessment assumes that the Phase I/Phase II split of 44%/56% for July 1, 2011 through December 31, 2012 (18 months) is representative of the Phase I/Phase II split for the entire two calendar years, 2011-2012.

DEC Report	Total CGP NOIs	Phase I	Phase II
SFY 2012 End-of-Year (7/1/11-6/30/12)	711	332	379
SFY 2013 Mid-Year (7/1/12-12/31/12)	306	117	189
Total	1017	449	568

The Phase I/Phase II percentage split of 44%/56% for July 2011-December 2012 is similar to data presented in DEC's 2011 CGP Fact Sheet which evaluated the number and size of projects covered under the 2010 CGP for the period of November 1, 2009-September 30, 2010. In that

time frame, the Fact Sheet data indicated that 44.5% of the NOIs were for projects of 5 acres or more and 55.5% were for projects of less than 5 acres.

Accordingly, this assessment assumes that in CYs 2011 and 2012, the yearly universe consists of 44% Phase I and 56% Phase II facilities.

Based on these assumptions and identified universes, the projected DEC CGP inspection goal for CY 2011 would be a total of 58 inspections (Phase I = 35 and Phase II = 23) and for CY 2012, a total of 49 inspections (Phase I = 30 and Phase II = 19).

Tables A and B show CGP percent completion rates of 79% and 41% for CYs 2011 and 2012 respectively.

The combined two-year CGP inspection coverage rate is  $(46+20)/(58+49) = 66/107$  or combined 62%.

Table A shows a combined 2011 MSGP/CGP percentage of DEC goal of 86%. Table B shows a combined 2012 MSGP/CGP percentage of DEC goal of 43%.

Based on this evaluation and the information depicted in Tables A and B, the DEC's combined CYs 2011-2012 stormwater inspection goal is estimated at 221 inspections (i.e. 107 + 114). Based on a completion of 147 inspections for the two years, DEC achieved approximately 66.5% of its stormwater inspection goals in terms of overall inspection counts (i.e. not factoring in whether DEC actually met the specific Phase I 10% and Phase II 5% goals).

The combined 66.5% stormwater inspection coverage rate for CYs 2011-2012 is approximately the same coverage rate that can be derived from DEC's end-of-year reports for state fiscal years (SFY) 2012 (7/1/11-6/30/12) and SFY 2013 (7/1/12-6/30/13). These DEC reports are summarized in the following table.

DEC Report	CGP NOIs/Total Inspection Goal	Completed CGP Inspections	MSGP Universe/Inspection Goal	Completed MSGP Inspections
SFY 2012 End-of-Year (7/1/11-6/30/12)	711/50	34	274/28	49
SFY 2013 End-of-Year (7/1/12-6/30/13)	620/44	10	290/29	11
Total Inspections (Goal or Completed)	94	44	57	60



Based on the evaluation of DEC's SFY reports and the information depicted in the table immediately above, the DEC's combined SFYs 2012-2013 stormwater inspection goal is estimated at 151 inspections (94 + 57). Based on a completion of 104 inspections (44 + 60) for the two state fiscal years, DEC achieved approximately 68.9% of its stormwater inspection goals in terms of overall inspection counts (i.e. not factoring in whether DEC actually met the specific Phase I 10% and Phase II 5% goals based on active coverages).

As noted, the CGP evaluations above are a comparison of a derived projected goal with an overall combined Phase I/Phase II inspection completion count. Additional data gathering and analysis (e.g. actual split of completed inspections within each phase) would be required to definitively assess DEC's adherence to national and DEC inspection coverage measures/rates based on actual Phase I and Phase II inspections completed each calendar year of this evaluation and based on an appropriate universe that includes all *active* CGP coverages.

The DEC CY 2013 CMS did include a specific projected inspection number for 2013. In 2013, DEC planned to conduct 10 inspections under their CGP.

DEC's December 24, 2013 Letter (i.e. CY 2014 CMS) indicates a range of proposed CGP inspections; that is, 12-20 inspections in 2014 based on a total of 620 NOIs received as of June 30, 2013. DEC's proposal of 12-20 inspections is in comparison to an estimated 44 inspections that would be expected under the EPA CMS goals based on DEC's apparent more limited universe which does not appear to include all *active* CGP coverages.